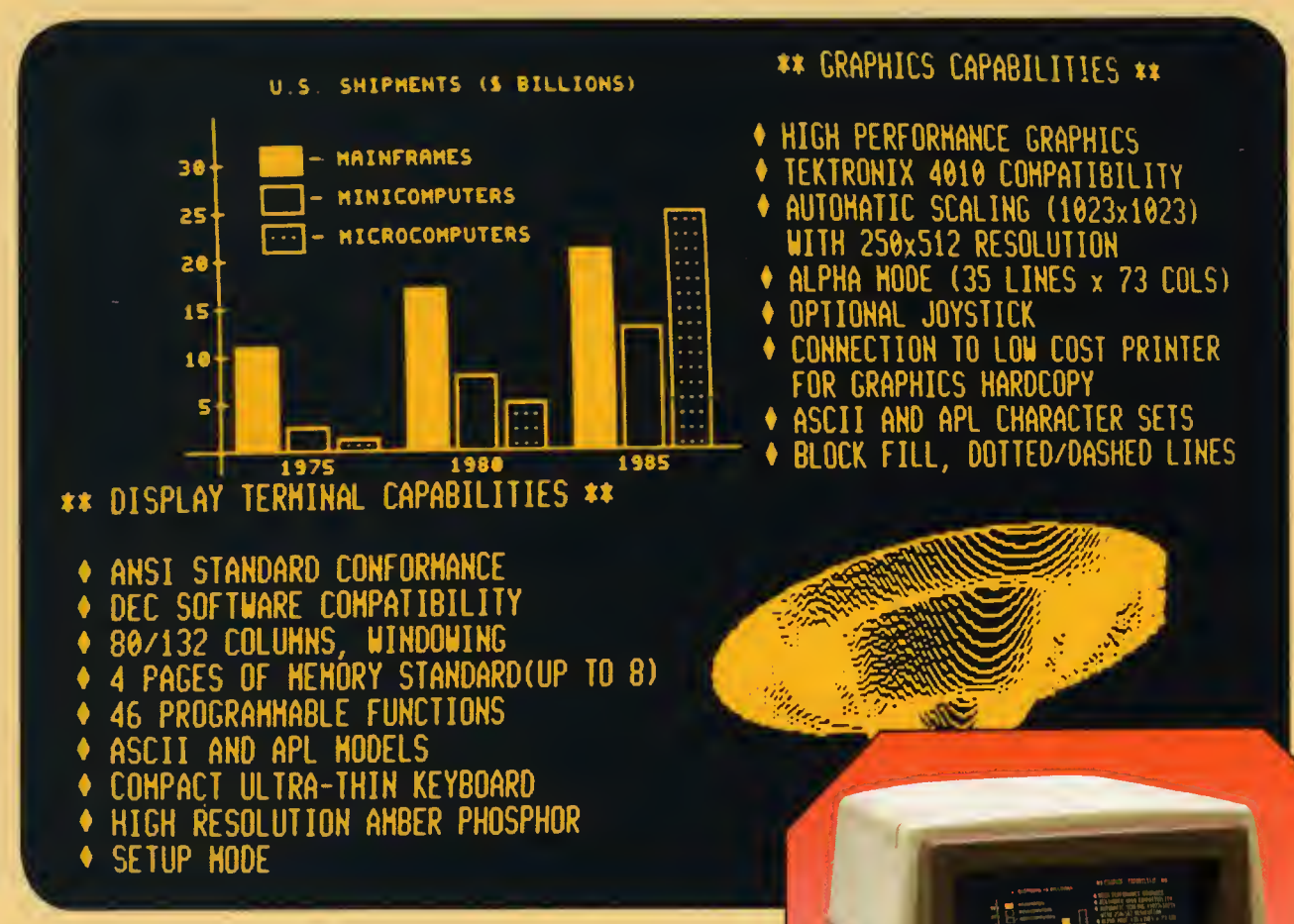
A Picture's Worth:



CONCEPT GVT+™ Graphics Display Terminal

human designed systems, inc.

A practical resolution for your graphics requirements

CONCEPT GVT+ Graphics Display Terminal

A practical resolution for your business and analysis graphics requirements

The Human Designed Systems *concept* GVT+™ graphics display terminal. Combining high-performance graphics with the industry's "smartest" interactive display terminal. Providing features which extend beyond the capabilities of the Tektronix® 4010...and at a price that makes it the industry's best graphics display terminal buy. And, whether used in video display mode or in its high-performance graphics mode, offering more at its price for terminal operators, interactive users, and applications developers than any other terminal available today.

In graphics mode...

The *concept* GVT+ graphics display terminal provides software compatibility with the Tektronix 4010 with its standard vector (780 x 1024), alpha (35 lines by 73 columns) and GIN (graphical input) modes. It provides many capabilities beyond those of the 4010 — including vector and character erasure or write-over, block fill, memory dump and load, dotted and dashed lines, hardcopy production via attachment to a low-cost printer, and graphics memory dim. Graphics memory can be accessed by either of the terminal's two standard bidirectional communications interfaces.

These capabilities make the *concept* GVT+ ideally suited for a wide range of graphics applications:

- Quick and simple data analysis and presentation of low-resolution business graphics (e.g. bar and pie charts, and curve fitting)
- Low-cost and fast method to preview and print high-resolution complex graphic presentations
- Practical, low-cost solution for low-resolution CAD/CAM applications

In interactive display mode...

The *concept* GVT+ graphics display terminal offers all of the capabilities of the industry's smartest terminal — the *concept* AVT+™. Standard capabilities include ANSI X3.64-1979 standard conformance, DEC software compatibility, four pages of memory (eight pages optional), 80/132 columns, compact, ultra-thin, detached 101-key keyboard, windows, easy-to-use setup mode, 46 fully programmable functions, multiple character sets, non-volatile memory for permanent terminal reconfiguration, text editing and data entry applications functionality, two bidirectional communications interfaces for simultaneous connection to multiple computers, block mode and much more — to provide the perfect tool for terminal operators, interactive users and applications developers. *Please see the concept AVT+ product specification DN 2301-8401-1) for a complete description of these capabilities.*

An APL version (*concept* GVT-APL+™) is also offered, which provides both APL and ASCII character sets and software compatibility with the Tektronix 4013.

GRAPHICS MODE FUNCTIONAL CAPABILITIES

Vector Mode

Vector draw or block fill
Resolution: 250 x 512 scaled from 780 x 1024.
Data levels; black, white, opposite (write-over).
Line types: normal, dotted, dot-dashed, short-dashed, long-dashed.

Alpha Mode

Character set: 96-character upper/lower case ASCII
Screen format: 35 lines by 73 columns.
Character formation: 6 x 6 within a 7 x 7 dot matrix.
Auto wraparound to second column on page full.
Cursor controls: up, down, left, right.

GIN Mode (Graphical input)

Use of cursor controls (up, down, left, right) or optional joystick.

Additional Capabilities

Memory dump/load.
Print graphics memory
Transmit status.
Dim graphics memory
Ability to power up in graphics mode (required for true 4010 software compatibility).

Graphics Options

Joystick: alternate Gin mode input.

HDS
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3440 Market Street
Philadelphia, PA 19104
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INTERACTIVE DISPLAY MODE FUNCTIONAL CAPABILITIES

Same as *concept* AVT+

See product specification DN 2301-8401-1.

PHYSICAL CHARACTERISTICS

General

Dimensions: Monitor — 15¼" W x 15½" H x 16½" D (38.7 cm x 39.4 cm x 41.9 cm). Keyboard — 16¼" W x 1¾" H x 7⅝" D (41.3 cm x 4.4 cm x 19.4 cm)
Power: 115 VAC; 60 Hz; optional: 220/240 VAC, 50 Hz.
Weight: 38 lbs. (17.27 kg).

Memory

Size: Graphics — one page. Interactive display — four pages (96 80-column lines) standard; (eight pages optional: 192 80-column lines).
Graphics memory and 24 lines of interactive display memory are displayed simultaneously at all times.
Either memory may be set to be non-visible.

Display

12-inch diagonal high-quality direct-etch amber (ALA) phosphor. No-cost options include direct-etch white (P4) or green (P31).

Keyboard

Compact, ultra-thin, detached via retractile coiled cord.
101 keys with typewriter-style layout — numeric, cursor, command and function pads standard. Forty-six programmable functions.

Communications

Code: ASCII
Type: Two bidirectional RS232C interfaces (20 mA current loop optional), 50-9600 baud (15 rates).
Parity: even, odd, none, mark, space.
Duplex: half/full.
Stop bits: one or two.
Controls: XON/XOFF and EIA CTS/RTS handshake.

The *concept* Family

Other members of the *concept* display terminal family include:

concept AVT+™ Display Terminal
concept AVT-APL+™ Display Terminal
concept GVT-APL+™ Graphics Display Terminal